GOVERNMENT OF INDIA
PETROLEUM AND NATURAL GAS
LOK SABHA

UNSTARRED QUESTION NO:2464
ANSWERED ON:01.08.2016
Coal Bed Methane
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Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) whether the Oil and Natural Gas Corporation Limited proposes to develop Coal Bed Methane (CBM) gas block in the country;
(b) if so, the details thereof along with the technology adopted to explore/locate the CBM;
(c) whether the ONGC has sought new pricing regime for CBM, if the details thereof;
(d) the details of shale oil and gas reserve available in the country and number of such reserves explored particularly in Krishna Godavari Basin along with the funds allocated/spent for the purpose;
(e) whether the Government has adopted/proposes to adopt the water intensive process to explore shale oil and gas or proposes to go for other alternatives such as shock waves, acidisation and injection of carbon dioxide method; and
(f) if so, the details thereof along with the steps taken to adopt alternative sources for exploration and production of shale gas?

Answer

MINISTER OF STATE (I/C) IN THE MINISTRY OF PETROLEUM & NATURAL GAS
(SHRI DHARMENDRA PRADHAN)
(a) & (b): Yes. Four Coal Bed Methane (CBM) blocks of Oil and Natural Gas Corporation Limited (ONGC) i.e. Jharia, Bokaro, North Karanpura and Raniganj(North) are in development phase.
Technology involved in exploitation of CBM is hydro-fracturing of coal bearing seams by drilling vertical wells upto the requisite depth. Thereafter, these hydro-fractured seams are de-watered i.e. stripped of water to produce CBM.
(c): The CBM operators including ONGC have sought permission to sale CBM on arm's length basis including provision of marketing freedom on the lines similar to provisions made in discovered small fields policy.
(d): Based on the geo-scientific data collected during the exploration of conventional oil and gas, assessments have been made regarding the likely potential of shale gas resources in the Indian sedimentary basins. Various agencies have estimated the shale gas resource potential in selected sedimentary basins/ sub-basins as indicated below:
i. M/s Schlumberger : 300 to 2100 Trillion Cubic Feet (TCF) of shale gas resource for the country (as available in public domain)
ii. Energy Information Administration (EIA), USA in 2013: 584 TCF of shale gas and 87 billion Barrels of shale oil in 4 basins (Cambay Onland, Damodar, Krishna Godavari Onland& Cauvery Onland)
iii. ONGC: 187.5 TCF of shale gas in 5 basins (Cambay Onland, Ganga Valley, Assam & Assam Arakan , Krishna Godavari Onland & Cauvery Onland)
iv. Central Mine Planning and Design Institute (CMPDI): 45 TCF of shale gas in 6 sub basins (JhariaÂ¸ Bokaro, North Karanpura, South Karanpura, Raniganj & Sohagpur)
v. United States Geological Survey (USGS) has also estimated technically recoverable shale gas resources of 6.1 TCF in 3 basins (Cambay Onland, Krishna Godavari Onland & Cauvery Onland). Further, USGS has indicated that these basins have also potential for shale oil.
ONGC/OIL are carrying out shale gas exploration. During last three years 2013-16, ONGC and OIL have made an expenditure of Rs. 192.08 crore on shale gas exploration.
(e) and (f): Hydro-fracturing is water intensive process. The other water free-fracturing techniques such as shock waves and injection of carbon dioxide are in Research and Development stage. However, ONGC has entered into a Memorandum of Understanding with Super Wave Technology Pvt. Ltd to develop Shock Wave Assisted Fracking Technology.
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